

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in this application.

Claims 1 to 6 (Canceled)

7. (Withdrawn - Currently Amended) A method for producing a steel sheet for vitreous enameling excellent in workability, aging properties and enameling properties and enameling properties characterized by:

retaining a slab containing the components according to ~~any one of claims 1-3~~ claim 10, in the temperature range from 900 to 1,100°C (Retained Temperature Range 1) for 300 minutes or longer before commencing hot rolling;

thereafter retaining it in a temperature range not less than 50°C higher than said retained temperature (Retained Temperature 2) for 10 to 30 minutes;

then cooling it to a temperature range not less than 50°C lower than said retained temperature (Retained Temperature 3) at a cooling rate of 2°C/sec. or less;

retaining it in said retained Temperature 3 for 10 minutes or longer; and thereafter commencing hot rolling.

8. (Withdrawn) A method for producing a steel sheet for vitreous enameling excellent in workability, aging properties and enameling properties and enameling properties according to claim 7, wherein hot-rolling is controlled under the condition of the time period from the time when the coiling of a hot-rolled steel sheet terminates at a temperature of 700 to 750°C in a hot-rolling process to the time when the temperature of said steel sheet reaches 550°C or lower for 20 minutes or longer.

9. (Withdrawn) A method for producing a steel sheet for vitreous enameling excellent in workability, aging properties and enameling properties and enameling properties according to claim 7, wherein the hot-rolled steel sheet is retained in the temperature range from 900 to 1,200°C for 2 minutes or longer with the temperature of said steel sheet not lowered to 900°C or lower when the reduction ratio reaches 50% or more after commencing hot-rolling, and thereafter hot-rolling is commenced again.

10. (New) A steel sheet for vitreous enameling excellent in workability, aging properties and enameling properties, the steel sheet comprising:

no more than 0.0025 mass percent carbon;
no more than 0.010 mass percent silicon;
from 0.1 to 0.5 mass percent manganese;
0.0005 to 0.0033 mass percent nitrogen;
from 0.60 times the amount of nitrogen to 0.0060 mass percent boron;
from 10 times the difference between the amount of boron and $11/14$ times the amount of nitrogen, $10 \times (B - 11/14 \times N)$, to 0.030 mass percent phosphorous;
no more than 0.030 mass percent sulfur;
no more than 0.010 mass percent aluminum;
0.005 to 0.0450 mass percent oxygen; and
a balance of Fe and unavoidable impurities, wherein
the steel sheet contains simple or compound nitrides, having a diameter of 0.02 to 0.50 μm , containing boron or aluminum, and having an average diameter of at least 0.080 μm , and

the proportion of the number of the nitrides of 0.050 μm or smaller in diameter to the total number of the nitrides is 10 percent or less, wherein the ratio of the amount of nitrogen in the steel sheet existing as boron nitride, BN, to the amount of nitrogen in the steel sheet existing as aluminum nitride AlN,

$$\frac{(\text{the amount of N existing as BN})}{(\text{the amount of N existing as AlN})},$$
is at least 0.50; and

the steel sheet comprises nickel plating on the steel sheet and beneath the enameling in an amount of about 0.01 to 2 g/m^2 .

11. (New) The steel sheet for vitreous enameling according to claim 10, wherein the steel sheet further comprises one or more of niobium, vanadium, titanium, nickel, chromium, selenium, arsenic, tantalum, tungsten, molybdenum, and tin, each in an amount of no more than 0.030 mass percent.